JPRS 76977 10 December 1980

# Worldwide Report

EPIDEMIOLOGY

No. 209



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#### STUDY OF PARASITE DISEASE IN BRISBANE ORDERED

Brisbane THE COURIER-MAIL in English 18 Oct 80 p 15

[Text] The Health Department is studying 100 children in southern Brisbane's Shailer Park area to determine the extent of a gastro-intestinal disease.

The Health Minister, Sir William Knox, said he had ordered the survey, because the problem of giardiasis, infestation by the giardia parasite, appeared slightly worse there than in other parts of Brisbane.

The coordinator of residents' complaints. Mrs Maureen Bugden, of Shane Street, Shailer Park, said last night that her three children had been sick for two years.

The eventual identification of the parasite and a course of tablets to combat it markedly helped the children, Kelly, 4, Luke, 3, and Jamie, 1.

She said: "They didn't have the normal symptoms of diarrhoea, but they passed unabsorbed food, had bloated tummies, recurrent respiratory infections, and mouth ulcers.

"Luke lost hair probably due to vitamin deficiency caused by the disease."

The Health Department said giardiasis occurred in most warm climate cities and usually was without symptoms.

Cr Ray Hodgson, of Loganshire, said a doctor told him that of 80 cases identified in the Brisbane area, 18 came from the Logan and Albert shires.

Mrs Bugden said the local clay soil caused problems for septic tanks, which overflowed and drained into the streets. Mothers wanted the shire council or State Government to provide free preventive treatment to hildren. "We want doctors to be aware of the problem because none seems to recognise anything other than the diarrhoea symptoms," she said.

"Ultimately, we want a proper sewerage system and a healthy area. We've been told it will take three years, but we need it now."

Mrs Bugden said volunteer children were needed to help with the Health Department survey and interested parents should contact her.

#### BRIEFS

SUSPECTED CHOLERA--Netrakona, Nov 1: Twelve persons died of gastroenteritis in Kendua police station under Netrakona subdivision. Thirty-one persons have been suffering from the disease, according to official sources. Eleven unions of the police station have been affected by the disease. According to the local people, the disease is cholera and diarrhoea. The Deputy Civil Surgeon Netrakona, rushed to the affected areas with a medical team. Curative and preventive measures have been taken. No vaccination and inoculation drive was launched in the police station earlier. It is alleged that TABC vaccination is not available in the subdivision for about a year. [Text] [Dacca THE BANGLADESH TIMES in English 2 Nov 80 p 5]

# CASES OF LEPROSY REPORTED IN CURITIBA; CONTROL PROBLEMS SEEN

São Paulo O ESTADO DE SÃO PAULO 28 Oct 80 p 13

[Text] (From our office in Curitiba)--The government has no control of leprosy in the Curitiba metropolitan area, where a number of cases of transmission of the disease are being registered. This report is from physicians at Piraquara, a municipality 24 kilometers from the center of Curitiba, where a leprosy hospital colony has been in operation for several years.

The Piraquara hospital has 430 patients at present. The major problem, however, is in the suburban settlements that form a ring around it, where there are hundreds of carriers of the disease living with their families, who come from the interior and wait for a vacancy for internment. As these settlements are completely integrated into the urban texture of the city, they also receive families that have no cases of the disease, but that come to live naturally with lepers, so that contagion occurs. At the medical posts of Piraquara it is increasingly common to register cases of leprosy in children living in Vila Primavera, in the vicinity of the hospital.

The doctors of Piraquara also report the lack of a leprologist in the health unit of the municipality, saying that the only one there was removed from his position a year ago and has not yet been replaced. They consider completely inadequate the existence of a medical post specializing in the disease in Curitiba, which treats only the carriers that approach it spontaneously. They warn that it is urgently necessary to have a dynamic control effort, with a social assistance service surveying and controlling the cases of the disease in the region: "It is not to be expected that the patient will go to a medical post, but it is indispensable to go out and see the patient," the doctors observe, explaining that even the patients that a specialized hospital succeeds in converting from positive (transmitters) to negative (nontransmitters) can regress and become transmitters again if they do not return to the doctor.

According to some residents of Piraquara, the problem is rather serious, as there are "positive" lepers who conceal the disease and frequent public places in Piraquara and Curitiba.

Another rather serious problem in Piraquara, where the creeks and rivers rise that supply the water consumed in Curitiba (population 1 million), is pollution. The São Roque Hospital Colony (leper colony) and another that has a tuberculosis department discharge their sewage untreated into the rivers and creeks that supply

water to Curitiba. Besides this, the same waters are also polluted by a herd of hogs at a small farm just inside Piraquara, where 2,500 animals are being fattened at present. The whole prison system of the city (central prison, farm prison school, asylum for the criminally insane, women's prison, and reform school) also dumps its sewage into the streams without treatment.

At the Superintendency of Water Resources, responsible for the control of pollution in Parana, the technician Ivo Brandi says that "the quality of the water used by Curitiba is optimal." He asserts that the agency has worked out treatment plans for the two hospitals, but cannot explain why they have not yet been implemented.

The pathologists and leprologists of Curitiba, however, say that an area that is the source of a water supply would be the area least indicated for establishment of hospitals to treat leprosy or tuberculosis. They feel it highly unlikely that those diseases can be transmitted by water, but say that what the two hospitals are doing is rather serious. They admit that treating water with chlorine eliminates the risks of contamination by viruses, but say that nothing gets rid of the chemical base of the medicines that a hospital discharges in its sewage.

One of the streams that furnish water to Curitiba runs beneath the building of the Piraquara General Hospital, where the tuberculosis dispensary operates. The lepers' hospital dumps its wastes into a settling pool where rats, birds, toads, if not children gathering vegetables, can be seen nearby. Access to the pool, which empties its dark, greasy wastes into the River Iraizinho, is rather easy. It is not even cut off from several settlements in the vicinity.

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#### SCHISTOSUMIASIS THREATENS TO SPREAD TO INTERIOR

Rio de Janeiro JORNAL DO BRASIL in Portuguese 2 Nov 80 p 19

[Text] Recife--Schistosomiasis, which attacks 10 million Brazilians, 3 million of them in the northeast, and which has hitherto been concentrated in areas of great population density, such as the periphery of the big cities and the sugar-producing zone, is now threatening to spread to the interior, where the disease has not been ordemic in the past.

Two foci of active transmission of schistosomiasis have been found by the Ageu Magalhães Research Institute in areas irrigated by the National Drought Control Department [DNOCS]. The institute fears that the disearce will spread because of the constant phenomenon of migrations.

#### Research

Research directed by the physician Direcu Pessoa Pereira da Costa in 19 irrigation centers of the northeast, in 18 municipialities distributed in four states, has confirmed that in two DNOCS projects—that of Moxotó, in Ibimirim, Pernambuco, and that of São Gonçalo, in Souza, Parafba—the disease has already arrived.

In São Gonçalo, just this year, 42 autosthonous cases of schistosomiasis have been confirmed. That is to say, all of the patients examined contracted the disease in the colony in which they live. in the interior, in an area where the endemic did not exist, or, if it occurred, it was in isolated cases, normally in persons coming from the Zona da Mata, where the disease is endemic.

The sanitation workers issued a warning late last week, calling attention to the Asa Branca Project, launched recently by the government of Pernambuco for the purpose of reducing the effects of the prolonged droughts.

As the Asa Branca Project is aimed at keeping the rivers flowing the year round and activating the water-producing mechanisms in the interior, it will inevitably open the routes for dissemination of schistosomiasis in the area, where sanitation is still a luxury and the water supply systems are rudimentary, without specialized treatment. This occurs principally in the rural areas and in the irrigation projects.

#### No Meanures

ministration took no measures in relation to Asa Branca because prevention of schistonomiasis is in the hands of the federal government, through the foundation SLSF (Special Public Health Service), whose director in the state, Francisco Ferral, admitted that "unfortunately, there are no special measures planned for the interior." But he added:

"What we are doing represents steps that are normal in combatting not only schistosomiasis but all endemic diseases. The treatment of transmissible diseases is under SUCAM [Superintendency for Public Health Campaigns]. In the case of schistosomiasis, remedies (the controversial drug oximaquine, sold commercially as 'Mansii') are given to the persons attacked, and molluscicides are thrown into the contiminated waters. Nevertheless, I feel that the work of Ageu Magalhães—a group maintained by the Osvaldo Cruz Foundation that also has the support of the National Research Council—is very opportune. We shall have no difficulties in launching a special effort, because we are organized all over the state, where there are units of the SESP and the Secretariat of Health in all the municipalities."

The doctors of Ageu Magalhiles are concerned not only with Pernambuco, but with all of the irrigation projects in the northeast, since these act as centers of attraction of labor from areas of greater population density—such as the Zona da Mata, where cane sugar is produced—and in seasons between crops draw large numbers of agricultural workers in search of employment.

These workers spread, by their feces, the eggs of the schistosoma, a microscopic worm. The egg, transformed into a miracidium, establishes itself in a type of snail, where it reproduces in thousands of miracidia, which discharge the cercariae into the stagnant waters of rivers, ponds, creeks, and pools. This miracidium penetrates the human skin and the whole cycle begins again.

The sanitationists admit that the area of incidence of schistosomiasis will treble unless measures are taken for the provention of the disease in the interior of the country.

In the work being done by Ageu Magalhiles--research in 19 DNOCS irrigation centers --16,165 parasitological examinations have been done and in the two projects where schistosomiasis was found the technicians collected 58,654 smails, which were examined and studied minutely.

### Preventive Measures

According to Pr Dirceu, to whom "the rôle of the fluctuating population, partly originating in endemic areas, that passes through the irrigated areas at harvest time is very important in the endemic maintenance of the infection," there are several ways of presenting schistosomiasis from spreading into the interior, where control will become impossible if the disease spreads.

"All of the irrigation projects ought to construct cesspools in the building-let areas, because that is where the transmission takes place. The fluctuating population needs to be made conscious of the problem, to avoid contamination of the ground and the waters. Protection of the household water supply is also

essential -- by an adequate system of treatment or of impounding water. Besides that, there should be periodic examinations of the feces of the settlers and care or treatment of those infected. These measures are of social scope and should be extended to all the irrigation or colonization projects being carried out in the interior areas of the whole northeastern region. If they are not taken, the dissemination of the disease and the impossibility of its control will be inescapable."

A report to this effect has been sent to the Osvaldo Cruz Foundation so that recommendations can be made to the agencies connected with the problem, such as DNOCS, to the SESP Foundation, and to SUCAM.

New Snail May Put an End to the Disease

The days of schistosomiasis, a disease whose treatment requires very strong medicines that are sometimes fatal to the debilitated and undernourished man of the northeast, may be numbered; Pernambucan scientists have produced, by genetic selection, a snail that does not transmit the disease and that is so strongly competitive that it will wind up eliminating Biomphalaria glabrasa, the principal intermediate host of the causal organisms.

This information is revealed by the physician Frederico Simões Barbosa, of the Technical and Scientific Council of the Osvaldo Cruz Foundation, which is carrying on research through the Ageu Magaihães Research Institute in Recife.

#### Alternative Solution

Or Frederico Simbes criticizes the conventional methods of combatting schistosomiasis, saying that they have not shown any efficacy.

The application of molluscicides to contaminated bodies of water poisons them, leaving them unfit for use in a region where the rural areas are supplied by springs and dams. And the irrandministered by the government's health agencies is extremely powerful for the man of the northeast. It caused a number of deaths in Pernambuco under the last government when a campaign was waged against the endemic disease.

For the last decade Dr Frederico Simões has been convinced of the necessity of a more effective method of controlling the disease. A few years ago he began to study the two types of snail that transmit it: Biomphalaria straminea and Mismobalaria planea. The former has very strong competitive power and contests living space with great effectiveness, succeeding in eliminating the latter. F. The Ireliminates 5,000 cercariae a day, while B. straminea climinates only 1/10 as many in the same period, or 500.

the disease. But Dr Frederico Simbes Barbosa stated that after many experiments he has succeeded by genetic selection in producing a strain of B. atrominea that does not produce cercariae. That is, the vicious circle of the disease is broken by a natural process.

He has been advocating this natural control of the disease since 1973. He published an article on the subject in an international journal (MALACOLOGIA). But

at that time his thesis was not well received. He spent several years in Europe in the employ of the WHO, and when he returned he resolved to resume the studies.

"Here in the Agou Magainles we set up a special structure, creating seminatural conditions, to establish scientific control of the phenomenon. The work demonstrated that, as I have already said, B. atroninea exhibited competitive advantages with regard to the essential elements of life. Unlike the other, better adapted, it fights intensely for the elements vital to its biological needs, and little by little reduces the other's room for action. In time it succeeds in eliminating B. glabrata, which is the most important transmitter of the disease. With the genetically selected strain transmission simply does not occur."

According to the doctor, the laboratory studies confirmed the observations made in Olinda and Paulista--towns in the metropolitan area of Recife--over 17 years. The studies showed that in this period B. atransical made enormous progress, expelling the other in a natural elimination.

In possession of these facts, the scientist introduced thousands of etramineae into a laboratory that the institute maintains in São Lourenço da Mata and produced new mollusks that do not transmit schistosomiasis.

The new snail, which is albino, reddish in color, and for that reason needs no identifying tags, will be introduced by thousands at Alhandra, in Parafba, where B. glairgiz exists exclusively. According to the doctor, "B. simplified's capacity is fantastic; it overcomes great obstacles." In the artificial canals, maintaining the natural environment, he showed that this type of snail advances even over pebbles, invading the other's area.

According to the doctor, this may perhaps be an effective method of combatting the endemic at the root. He disagrees with the traditional methods adopted by the government, and with health education for the people of the northeastern country-side:

"Health education is a term that ought not to exist. Education must be general, for with the present methods of combatting the endemic no progress will be made if wages remain low, famine persists, and the elementary conditions of hygiene are lacking.

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CSO: \$400

# MEASLES EPIDEMIC IN MINAS HITS ADULTS; INMUNIZATION INITIATED

#### Adults Stricken

Rio de Janeiro O GLOBO in Portuguese 19 Oct 80 p 5

[Text] Montes Claros (O GLOBO) -- After visiting the city of Riacho dos Machados, 160 km from this city, Jose Saraiva Felipe, director of the Rigional Health Center, reported yesterday that the measles epidemic which has taken four lives there has unprecedented characteristics, since its victims are as much as 18 years old. According to Felipe, "the disease is killing people because of the general state of malnutrition and the unreliable and antequated methods of treatment."

Returning to Montes Claros yesterday, Saraiva dispatched a doctor and 500 doses of measles vaccine to Rischo dos Machados. He was astounded at the gravity of the epidemic and its characteristics, which he said were "completely contrary to the normal course the disease usually takes." He added that there are dozens of municipios in northern Minas where the people are living in conditions like those of the 2,500 inhabitants of Riacho dos Machados.

"Moreover," he said, "there are thousands of undernourished children in Brazil. There must be an intensive vaccination campaign, along the same lines as the one developed against poliomyelitis."

According to the director of the Regional Health Center, the population of Riacho dos Machados is composed almost entirely of employees of a reforestation company, "who live in unfit shacks." He reported that children and adults with the disease were being nursed with herbs and home brews, in a treatment that included elderberry tea, gecko meat and even cow dung.

Another big problem confronting him in controlling the epidemic in the city and preventing it from extending to the neighboring communities of Monte Azul and Mato Verde is that most of the families now living in Riacho dos Machados came from those cities to work at cleaning out the forest, and they return there regularly to visit friends and relatives.

# Vaccination Campaign

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 21 Oct 80 p 25

[Text] Belo Horizonte--The Minas Gerais Secretariat of Health yesterday launched a mass vaccination campaign against measles in the municipio of Riacho dos Machados, in the north of the state, to prevent further cases of the disease, which has already killed 4 children and affected 20 others in the last few days.

According to the secretariat, however, the 4 deaths and 20 measles patients do not constitute an "epidemic," but a "rise in the endemic level."

iant week, Dely Alves de Souza, mayor of Riacho dos Machados, claimed the municipio was experiencing a measles epidemic; it had already taken the lives of 10 children and had hospitalized dozens more. On Friday, Jose Felipe Saraiva, director of the Montes Claros Regional Health Center, was in the city, where he confirmed 4 measles deaths (one of which occurred on Friday itself) and the presence of measles in over 20 children.

According to the regional director, three of the four children who died were members of the same family, and all the other cases appeared on the outskirts of the city, "among families at the lowest economic level." The children who died were 8, 7 and 2 and 1/2 years old.

Benedictus Philadelpho de Siqueira, chief of the Office of Coordination and Planning of the Secretariat of Health, reported that the medical station at Riacho dos Machados is promoting a systematic vaccination of the public, "and there are even registers of the vaccinations administered in May and June." According to the doctor, the disease attacked children who had recently come from rural areas and had not yet sought out the health station, which has three permanent health aides and is visited every 15 days by a doctor from the city of Porteirinha.

In addition to the director of the Montes Claros Regional Center, two other physicians went yesterday to Riacho dos Hachados, to launch the vaccination campaign and to complete the survey of the city to verify any further measles cases.

#### BRIEFS

DOMESTIC VACCINE PRODUCTION--Within 3 years Brazil will be in a position to produce all the vaccines that are now imported, particularly poliomyelitie and measles vaccines, and the reagents for diagnosis of hepatitis and Chagas disease. In addition, research to be initiated in January by the Oswaldo Cruz Foundation will ascertain the most common causes of infectious diarrhoea, enabling the minister of health to take measures to reduce the high rate of infant mortality now registered as a result of diarrhoeas. The information came from Guillardo Martins Alves, president of the Oswaldo Cruz Foundation. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 16 Oct 80 p 16] 6362

CSO: \$400

#### IMMUNOLOGY TRAINING CENTER TO BE SET UP

Yaounde CAMEROON TRIBUNE in French 2 Oct 80 p 3

(Article by A. V. E.)

[Text] At the Yaounde University Health Sciences Center (CUSS) yesterday morning, Victor Anomah Ngu, vice chancellor of the university, officially opened a tropical disease immunology training center, organized with the financial backing of several international organizations, including the United Nations Development Fund (UNDP), the World Bank and the World Health Organization (WHO). Nine trainees, including six Cameroonians, two Congolese and one student from Benin, will participate in the course, which will end on 22 December.

For Prof Ngu Lifangi Jacob, coordinator of the WHO-CUSS project for research in tropical diseases, the course is essentially simed at stepping up the fight against tropical diseases in the Third World. The best approach therefore consists of doing research on the spot, in the countries affected by the diseases. The science of immunology is not yet very developed in French-speaking African nations and it is therefore necessary to train research workers. Two training centers in the discipline exist for English-speaking countries at present: one in Abadan in Nigeria and the other in Nairobi, Kenya. The WHO therefore proposes to set up a similar center in Cameroon for French-speaking countries.

#### Need for Prevention

Our country was chosen for two main reasons: first of all, because it has more specialists in immunology than the other French-speaking African nations, and second, the bilingual nature of Cameroon will make it possible in the future, within the framework of the WHO-CUSS project, to organize course in English and French.

The importance of parasitic immunology can be seen in the ravages in the form of les rused by parasitic diseases carried by immunologic mechanisms. To cite be ample, malaria causes kidney damage because of the immunologic products see by the parasites, resulting in what are called "the immunologic complexes." The aciples of immunology also explain several types of lesions caused by tropical diseases.

Prevention remains the best approach to fight these diseases and one of its essential goals is the production of vaccines. Such production is very important,

Professor Ngu Lifangi explains, in research in tropical diseases. To take another example, if smallpox was able to be eradicated, it was thanks to smallpox vaccines.

Immunology is the basis for all research into the making of vaccines. In the final analysis, it plays a role in all fields of medicine: kidney and heart transplants, cancer immunotherapy, sterility in men, and so on.

Trainees participating in the immunology course at the Health Sciences Center are doctors, pharmacists and teachers. Coming a few months after the 13th technical conference of the Coordinating Organization for the Fight Against Endemic Diseases in Central Africa (OCEAC), which had just initiated the fight against tropical diseases in our subregion, the course should give a new boost to the fight for better health for our people.

11,464 CSO: 5400

#### VACCINATION SEMINAR HELD IN BAFOUSSAM

Yaounde CAMEROON TRIBUNE in French 4 Sep 30 p 8

[Article by Kapawa: "Health Protection and Promotion"]

[Text] On 25 August, the secretary general of Ouest Province officially opened the training course for intermediate-level personnel in the expanded vaccination program at the Bafoussam Nurses and Midwives School.

The victory of vaccination over smallpox has inspired a great deal of hope in the fight against communicable diseases. As a result, the WHO believes that other diseases for which effective vaccines are available might be beaten in the same way. For that reason, at its 27th World Health Assembly in 1974, the WHO adopted the resolution to institute a so-called expanded vaccination program against diphtheria, tetanus, whooping cough, tuberculosis and measles.

#### Four Aspects

In 1975, Cameroon was one of the first countries to organize an expanded national vaccination program. Revised in 1979, the program has four aspects: the establishment and maintenance of a refrigerated line; the training of personnel in the modern techniques of vaccination; the application of modern logistics; and the gradual expansion of the program to the entire infant population under the age of 3.

#### Well-Being

The purpose of the program is to reduce the rate of morbidity and mortality due to measles, tetanus, whooping cough, tuberculosis and polio by 80 percent by around 1990 in all children born in Cameroon.

Following the example of other countries in the world, Cameroon has established the objective of ensuring all Cameroonian citizens an acceptable state of physical, mental and social well-being by the year 2000. In order to achieve this objective, particular emphasis is being placed on health protection and promotion, expressed in the development of treatment and care, education, improved hygiene and diet, development of the infrastructure and the training of personnel.

#### Choice Spot

Because of the cost of treatment, 80 percent of the people living in rural areas do not have access to it and in order to have total health care for the population

at a lower cost, the government is emphasizing preventive medicine. In this field, vaccination occupies a choice spot as a means to fight communicable diseases. Numerous studies and investigations have shown that these diseases contribute substantially to infant morbidity and mortality in underdeveloped countries. In the current state of our knowledge, scarcely 40 percent of all children under the age of 3 are immunized against these diseases. It is in order to improve this situation rapidly that the expanded vaccination program will find its place in the national development of health services, thanks to the active participation of other health services such as the PMI [expansion unknown], rural medicine, health education and the participation of local collectives. It was within this framework that the seminar was conceived so that it would enable personnel from the different departments to be retrained in modern management of vaccination activities.

For 2 weeks, participants from several African nations and their colleagues from Cameroon will study problems connected with these activities. Because these problems constitute frequent obstacles to the success of the program, participants will have to demonstrate great imagination and spirit of initiative in order to find ways and means of making the cost of health compatible with the government's budget.

11,464 CSO: 5400

#### MEASURES AGAINST THALASSAEMIA ANNOUNCED

Nicosia THE CYPRUS WEEKLY in English 14-20 Nov 80 p 2

[Text]

Pre-natal examination at the Anti-Ariaemic Centre in Nicosia will contribute greatly to the eradication of thalassaemia (Mediterranean Anaemia), Minister of Health George Tombazos declared in Nicosia this week.

Speaking at a press conference and later at a dinner to mark the 5th annual campaign by the Cyprus Anti-Anaemic Society to educate the public in general — and future parents in particular — Mr Tombazos announced that every year less and less children were being born in Cyprus with the disease.

"Their number has aiready been reduced by two thirds, and we are looking forward to the day when theissaem is will be something of the past" he said.

# Appeal

The Minister also joined in a fervent appeal made by Mrs. Mimi Kyprlanou, in her capacity as honorary president of the Society, for full support for the work done by both the government and the Anti-Ansemic Society.

Both Mrs Kyprianou and Mr. Tombazoe announced that the standard of treatment and pre-hatel prognosis in Cyprus was equal to

that of hospitals abroad and added. "We have absolutely no reason to envy them or their standard."

This was also confirmed by Professor Christos Kattamis, the Cypniot-born specialist in pediatrics at Athena University, who is currently on a secture tour of the island on the prevention and trestment of thalassaemia.

#### Seriousness

Sponsored by the Anti-Anaemic Society, the lectures aim at bringing home to as many people as possible the dire need to understand the seriousness of the disease and the endless fight against it by the Ministry of Health and the Ariti-Anaemic Society

The Chairman of the Society, Mr. Panos Englezos, detailed the work done so far and also appeared for new blood. He also suggested that the government should give serious thought to the welfare of affected people and should not shirk from giving them full chances of employment.

He outlined the progress made in the social adaptation and technical and vocational training of patients, and compared the present situation to that of 1973 when the society was formed, only a few years after scientists discovered what the disease was and what it meant.

He was particularly happy to announce that the island had adopted the latest methods of blood transfusion, with young red cells, which means that patients now do not have to have frequent blood transfusions as in the past. This new method, he explained, considerably reduced the accumulation of iron in the blood. It was recommended by an American expert, Mr. Alen Cohen, during his recent visit to the island, Mr. Englezos said.

During the dinner, Mr. Englazos presented special medals for outstanding contributions to the work of the Anti-Anaemic Society to Mrs. Kyprianou, former Minister of Health Andreas Mikellides and to Professor Kattamis.

# Support

President Kyprianou, who chaired the dinner meeting, piedged his government's fullest and undivided support to the magnificent work done by the Society, and declared: "It is the aim and ambition of the government to see the island completely free from the disease".

The memory of the late Michael Savvides was honoured and he was postumously proclaimed a "grand benefactor" for his most generous contributions to the funds of the Society from the very first days of its establishment

Meanshile, the Cyprus Anti-Anaemic Society has announced that there will be street collections in all the towns of the island tomorrow thorning, and has appealed to the public to give generously.

#### BRIEFS

SYPHILIS IN NAGUA--Samana--Twenty-six percent of Nagua's overall population is affected by syphilis, according to research reported 2 days ago at a scientific meeting of the Dominican Medical Association (AMD). Such an incidence of syphilis is a real scandal according to more than 100 physicians from the northern region of the country who attended the event. The exponents of the scientific work were Drs Elvis Espaillat and Bienvenido Knipping Rosario who performed 600 VDRL tests for syphilis in rural and urban Nagua. The study was carried out from March to August of this year with subjects between the ages of 15 and 65 sought from house to house. The city of Nagua was divided into 5 districts for the purpose of the study and in each of them 50 samples were taken. The rural area was also divided to apply the VDRL test. In Nagua's urban area, 250 samples were taken from 140 men and 110 women, of which 45 were positive, 15 in men and 40 in women. In the urban area, among the group of women whose results were positive, some had had two or three abortions. "In all the places chosen for samples, it was observed that there were no other means of recreation than billiard parlors and brothels," the researchers stated. [Ex.erpt] [Santo Domingo EL NACIONAL in Spanish 24 Sep 80 p 168] 9341

#### UPSURGE IN TH CASES REPORTED

Athens TO VIMA in Greek 30 Oct 80 p 9

Text Salonica, 29 October, from our correspondent--Kon. Stavropoulos, professor of pneumonology at the Aristoteleion University, said that tuberculosis is a serious problem in Greece today and is becoming worse because of the lack of an anti-tuberculosis struggle program. He made this statement during a round-table discussion on tuberculosis epidemiology at the Seventh Medical Congress of the Armed Forces which opened its sessions here today.

It was pointed out in detail that TB cases have increased alarmingly in recent years and that the illness incidence index in this sector is higher in our country compared to the West European countries.

Comparing the epidemiological indices in the Armed Forces during the past 30 years, chief surgeon Ioan. Dimoiliopoulos said that there exists a serious tuberculosis problem in both the army and the civilian population. He said that the tuberculine index (the percentage proportion of positive reactions) and the illness incidence index for active pulmonary tuberculosis show a rising trend in the army despite the phenomenal drop during the years 1947-1969 and the stagnation that followed.

More analytically, the tuberculine index among the conscripts was 76 percent in 1947, dropped to 26 percent in 1969, and to 18 percent 7 years later only to increase to 21 percent in 1979 and to 22.8 percent in 1980. According to the military physician this high index, unacceptably high for our time and which reflects a corresponding increase in the country's population, is due mainly to the lack of an organized anti-tuberculosis struggle during the postwar years and especially in the past decade.

Athers Health School Professor Papaevangelou pointed out that the mortality rate from tuberculosis is very low in our country but the illness incidence data show the dimensions of the problem in recent years. He added that the tuberculine index is higher than that in West European countries and fluctuates between 5 and 10 percent in persons of school age and 20 to 40 percent in adults.

A report submitted to the Congress by a research group connected with the A. Kyriakou Children's Hospital showed that in the past decade tuberculosis has continued to be a serious medical and social problem in Greece. The 831 c ses the group studied showed that the number of children treated for tuberculosis remains high compared to previous decades while the deaths from tuberculous meningitis and miliary

tuberculosis have definitely decreased (1.8 percent deaths). The scientists stated that the most vulnerable ages are the first 3 years of life for all tuberculosis types except pleurosy. One of the speakers at the opening session of the Congress was Dr. K. Staible of Helland, a specialist in tuberculosis prevention and director of the International Center for Tuberculosis Control. He asked that all anti-tuberculosis programbe intensified throughout the world and that the new scientific data be applied for controlling tuberculosis. He added that the preventive control of tuberculosis with tuberculo-reaction (known as Mandoux) should be used extensively during the school-age years and that early detection of contamination is necessary. He said also that all children should be subjected to anti-tubercular ineculation and that all modern medical means, such as chemo-prevention, should be used in tubercular environments.

It was pointed out in the round-table discussion that the best known and most reliable method for investigating suspected tuberculosis cases is the intradermic Mantoux (with purified 45-14 diluted 1:5,000) which has been approved by the World Health Organization. It was pointed out that the systematic application of the tuberculo-reaction helps in the early diagnosis of suspicious clinical cases and to the epidemiological investigation of large groups of individuals. This method is more reliable than the radiological examination.

Finally, Major Handsios, surgeon at the army's Center for Biological Studies, said that there is danger of tuberculosis contamination from animals and especially from cattle--about 5 percent of the milk producing cows are tubercular--and from milk and milk products. The marketed healthy milk, he added, depends on the proper pasterization which together with ociling and acidifying is the best method of eliminating tuberculosis myce-bacilli.

7520 CSC:4908

#### DISEASES AMONG ORISSA TRIBALS STUDIED

Bomhay THE TIMES OF INDIA in English 3 Nov 80 p 13

[Text] Cuttack, November 2 (UNI): About 70 per cent of the tribal population in Orissa are leprosy-afflicted. This has been revealed in a study recently carried out by Dr Almas Ali of the tribal and Harijan research-cum-training centre, Bhubaneshwar.

Dr Aii told UNI that incidence of sickle-cell disease, a genetic disorder that caused G-6-PD deficiencies (anaemia), was widespread among the tribals. This led to leprosy.

The young doctor, who specialised in blood diseases from the Soviet Union and lived in Adivasi villages for long to conduct his studies, explained that if both the copulating man and woman had this disease, the progeny would absolutely have no chance for survival.

The institute director, Dr Nityananda Patnaik, said one of the major reasons for the spread of the disease was that the water of the springs, the only source of supply in the hilly adivasi areas, contained graphite.

Dr Patnaik said the most difficult task that the institute had in hand was collection of the "universal bench mark survey data." The previous 25 years of planning had been done without any basic data, indispensable in formulating any meaningful tribal development plan.

Under the project, 1.5 million tribal households belonging to the fl tribal sects of drissa were covered in two months last year at a cost of Rs 19 lakhs. But, he said, lack of finance stood in the way of lifting and transporting the enormous data lying with 4,000 primary teachers who had collected them, and in 800 offices.

In the absence of amenities, the records were getting damaged and destroyed, requiring recollection of data.

# POLIO INCLNIZATION PROGRAM TERMED NODEL

# Blantyre DAILY TIMES in English 9 Nov 80 p 1

(Text)

#### BLANTYRE

MALAWI is now a model of polio immunisation in Africa, Mr. G. Sale, London-based Save the Children Fund operations and technical officer for Malawi, Lesotho and Swaziland hassaid in an interview with MANA.

said in an interview with MANA.

Mr. Sale, who arrived in the country last Tuesday. November 4, said "Malawis one of the first countries to execute the immunication against pubo to Africa and all countries are looking at Malawi to see how it is combating the disease."

her came to see how the programme was phasing out and to hold discussions with officials of the Ministry of Health on the programme.

Taking stock of the progress so far since the inception of the programme in April this year. Mr. Sale said the programme is proving a success because the community is fully participating. "Mothers are actually understanding the implicity of immunisation and are bringing their children to vaccination centres in the rural areas. Be confirmed.

He said the campaign was going on smoothly because of the dedicated work of the staff from the Ministry of Health and the masses of Mala4s which has been a phenomenon to eradicate polio.

to eradicate policity to sale usded that he hoped momen would continue having their children vaccinated at under five climics and health centres to that they can support their nation and His Excellency the Life President in building a strong nation of Marain.

As a Government controlled programme the police immunitation campaign is trying to keep to budget as low as possible, he said "Our assistance lies in vehicles and vaccines. Mr. Sale

Majary isomehed an antipolicy immunication campaign that will run on for 10 years in an effort to combin the disease. The Minister of Health, Mr. L. Charrys Phus mangarated the campaign at Ngabu in Chatwaws District on April 16 this year

### CHOLERA CASES STILL APPEARING

Beira NOTICIAS DA BEIRA in Portuguese 25 Oct 80 p 3

[Text] The cholera outbreak in the province of Maputo has not yet been completely overcome, according to statements made yesterday to the Mozambique Information Service (AIM) by the national director of preventive medicine, Jorge Cabral. According to that official of the Ministry of Health, the last centers detected are in the Magude and Manhica districts, to the north of the capital of the country.

Up to now 17 confirmed calms have been found in these districts, with 6 deaths. The cholera situation in these localities was discovered in August of this year. Medical teams from the Ministry of Health have launched efforts to control the situation and prevent the spread of the disease.

According to Jorge Cabral no cases of cholera have been registered in other parts of the province of Maputo since August. From March to June of this year the urban area of Maputo was affected by this infectious disease, 293 cases having been detected. AlM learned that at present there is no cholera situation or detected case of cholera in other parts of the national territory.

At this moment the Mozambican health authorities are devoting major attention to an epidemic attack reported in the South African province of Transvaal, fearing possible contagions on Mozambican territory.

For that reason an increased health control has been implemented at the airports and at the frontiers; there is a joint effort of agencies of the Ministry of Labor and the National Directorate of Migration. At the southern frontiers of the country there is a constant movement of Mozambican workers to the mines of South Africa.

3588

NEPAL

# BRIEFS

ENCEPHALITIS DEATHS--Nepalgunj, Nov. 10--Ten persons died of virus encephalitis in Banke district recently, it is learnt. Most of the victims were children, reports RSS. Seven of the deceased were patients of the local Bheri Zonal Hospital where altogether 17 persons were provided treatment in the past one month. Three are no encephalitis patients at the hospital at present, it is learnt. Heanwhile, cleanliness and publicity campaign against the disease has been launched in cooperation with the panchas, social workers and social organisation in the district. [Text] [Kathmandu THE RISING NEPAL in English 11 Nov 80 p 4]

CS0: 5400

### INCIDENCE OF LEPTOSPIROSIS IN HUMANS FOCUS OF STUDY

Christchurch THE PRESS in English 3 Oct 80 p 14

/Article supplied by the Health Department7

/Excerpts7

The small rural town-ship of Ngates on the Haurski Plans was in-

waded recently.

However, the invaders had the district's interests at heart. Personnel from the Department of Health and the Ministry of Agriculture and Fisheries used Ngstea as the base for their comprehensive research study into the incidence of leptospirosis in humans.

humans.

The disease is an occupational hazard for dairy farmers throughout New Zealand It costs the country thousands of dollars in loss of livestock through spontaneous abortions and as well it brings suffering and hardship to farming families.

Fragmented study of the disease has been done in this country for a number of years, most of it centred at Massey University and at the National Health Institute. However, the latest study is different.

of the disease a come in direct

Leptospurosis is found throughout the world and there are about 150 different strains of the disease. In this country six, in particular, and most predeminantly two strains, cases diagnosed in and confirmed b testing. The six found in New Zee all infect man most common strain being hardjo (cattle bem the primary host) and po

Heurald developed land now used pre-dominantly for dairy farm-

cause between the months of August to November the soil is very wet, and as the leptospirae organism has a limited life expectancy in water and soil, it has meant this aspect could also be studied.

During this trial, milkers, full-time, time and occasional, interviewed. Farm owner were also given a detaile questionnaire to answe farming practises relat-to herd management,

and farmers alike.

The percentage of infection for the country's large pig farms is slightly higher at 85 per cent. Infection rates for sheep, horses, goats, dogs, cats and some wildlife, such as opossums, is considerably lower, however.

It is hoped to e nated, and those that were not, that the use of a vac-cine in cattle does reduce the rate of the disease in

Final results will not be known until mid-March next year, when figures from the full militing sea-son have been analysed.

ccu: ": cu

# HEALTH MINISTRY STUDIES MALNUTRITION, PLANS SOLUTIONS

Managua BARRICADA in Spanish 28 Sep 80 pp 1, 5

[Excerpts] In Nicaragua 68 percent of children under the age of 6 suffer from malnutrition. The official statistics of the Ministry of Health reveal that children are one of the main victims of the socioeconomic devastation promoted by the policies of imperialism in Third World countries.

The Ministry's Nutrition Section recently carried out studies to determine the main causes of malnutrition and its manifestation in children of rural and urban areas of the country.

#### Vitamin A Deficiency

Vitamin A deficiency is more serious in children, according to the research. It was found that 20 percent of Nicaraguan children under the age of 5 suffer serious Viatamin A deficiency. Among children the most affected organ seems to be the eyes and permanent blindness can result if the disease advances.

Anemia is the result of a low consumption of foods rich in iron. It can be considered another nutritional problem with higher incidence among the rural population, especially in children under 3 and youths between 12 and 17 years old. National figures show that 35 percent of the population suffers from anemia, and 40 percent of these are pregnant women.

Anemia has become worse among children because most of them have infantile parasitosis.

Because of nutritional problems, 33 percent of the Nicaraguan population suffers from goiter. Iodine deficiency due to low consumption of vegetables and sea products is another cause of the malnutrition.

### Health Programs

The Ministry of Health is developing intensive programs for children with nutritional problems—such as "Complementary Food" for children with second-and third-degree malnutrition—to try to stop the diseases.

The program is being carried out in 8 departments: Managua, Leon, Rivas, Masaya, Madriz, Matagalpa, Nueva Segovia and Esteli. There are 47,781 children under observation in all these departments.

Nutritional care is offered in all the country's hospitals to children with thirddegree malnutrition who have serious complications. In Jinotega, Jinotepe and Matagalpa, special rooms are being built to take care of these children.

Pregnant women and lactating mothers are also being checked under the nutritional care program in all the health centers. At these centers 15,600 mothers are checked, their weight and height are noted and laboratory tests are made.

Most Affected Departments

The departments of Esteli, Matagalpa and Jinotega have the highest percentage of malnutrition: 71 percent in the urban area and 75 percent in the rural area.

In Madriz and Nueva Segovia the percentage of malnutrition is 62 percent in the rural areas and 82 percent in the urban regions. In Boaco, Chontales and Rio San Juan there is 68 percent malnutrition in the urban area and 71 percent in the rural.

The degree of malnutrition in Leon and Chinandega is believed to be 59 percent in the urban area and 71 percent in the rural area. In Zelaja, it is 62 percent in the urban area and 67 percent in the rural area.

Mainutrition in Managua, Granada, Masaya and Carazo reaches 65 percent in the urban area and 66 percent in the rural area.

9341

#### BRIEFS

ANTICHOLERA CAMPAIGN--Efforts have been intensified to combat the outbreak of cholera epidemic reported in the Ondo Local Government area of Ondo State. Investigations further carried out revealed the activities of the officials of the State Ministry of Health to immunise the people against the spreading of the deadly disease to other parts of the state. Top official of the ministry who confirmed the outbreak of the epidemic gave an assurance that no stone would be left unturned to combat it. The official could not, however, be specific on the number of deaths recorded since the outbreak of the incident. Meanwhile a campaign aimed at getting people to come forward to be immunised against the epidemic is being stepped up. [Text] [Lagos DAILY TIMES in English 10 Nov 80 p 5]

CHOLERA IN GONGOLA STATE--Lagos, 17 Nov (AFP)--Ninety people have died of cholera in the northern state of Gongola since the month of August, the government's daily newspaper, THE NEW NIGERIAN, indicates. The state commissioner for health confirmed the figures and also explained that thanks to the government's campaign informing the public on hygiene measures designed to make their surroundings more healthful, the situation is under control. More than half a million children and adults have been vaccinated against the disease. [Text] [AB171722 Paris AFP in French 1500 GMT 17 Nov 80]

EDITORIAL: MEASLES IMMUNIZATION CAMPAIGN LAUNCHED

Lahore THE FARISTAN TIMES in English 8 Nov 80 p 4

[Text]

Measles has been regarded as an inevitable childbood disease, something to be got over in infancy and forgotten thereafter. But medical science now traces many life-time handicaps such as deafness to the early bout with measles, especially among malnourished children. The Lahore children. The Lahore Municipal Corporation s resolve to protect children between the ages of seven months and two years is therefore a cause that deserves all support A campaign, launched the other day and inaugurated by the City Mayor, was started by vaccinating 500 infants in a congested locality of Lahore. It proposes to reach 12,000 children every month and eventually immunise them against the other dangerous infectious and communicable diseases, namely, polio, whooping couch. teranus, teranus, diptheria and tuberculosis. Given Pakistan's limited resources and inadequate health services , frastructure a campaign of these dimen-sions calls for sustained financial and logistical endeavour. The assistance of WHO is a welcome input but the success of the programme will depend on the efficiency and honesty of our own wor-kers. The Children's Immunisation Society started by a group of paedia-tricians in 1975 is already in existence. The organisation which runs several centres has been working steadily, if not spectacu-larly, to create awareness among the masses of the importance of protecting the new born against fatal and crippling diseases during the first few months of life by availing of the inoculations developed by modern science. The doses are not costly: for about Rs. 10 a child can be protected against the diseases mentioned

except for measles which is more expensive at about Rs. 40, a small sum as a price for preventable tragedy or death, but one which our social structure apparently finds difficult to generate.

According to the Immunisation Society's estimates, about 80,000 babies are born in Lahore annually and of these hardly a quarter are immunised. If this is the picture in a large urban centre where information and services are reachable, what of the 25 lakh infants who arrive in the country each year? With one of the world's highest birth rates we also have a high infant mortality rate. Public consciousness must be aroused to a point where parents demand protection for their children. If, however, the people remain ignorant of the hazards posed by child-hood diseases it is for the authorities and agencies concerned to reach out

## BRIEFS

DENGUE FEVER--Philippine health authorities said H-fever, a mosquito borne-disease, is on the rise in Metro Manila. Government hospital records showed a doubling of H-fever confinements during the first week of November, from six or seven a day to 15 to 17, published reports said today. Also known as dengue fever, the outbreak affects mostly young children who are bitten during the daytime by the aedes egypti mosquito. The disease, according to Government hospital chief Cesar Uylangco, affects Asians more severely than Caucasians. While H-fever is as common as the flu among white-skinned people, the disease produces internal bleeding when it hits Filipinos and other Asians. Medical experts have not pinpointed the reason for the difference in affliction symptoms among various races. Health officials called for the intensification of pest-control measures. [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 11 Nov 80 p 7]

#### ANTI-EPIDEMIC ALERT COMMITTEES FORMED TO COMBAT CHOLERA

# Mbabane THE TIMES OF SWAZILAND in English 13 Nov 80 p 1

[Text]

THE MINISTRY of Health in collaboration with the World Health Organisation (WHO) have formed special anti-epidemic surveillence committees whose job will be to keep cholera out of the country.

The Chief of the Public Health Services Department. Dr Ruth Tshabalala said Swaziland was fortunate that it has not been attacked by cholera "which has been reported all around our borders in Mozambique and South Africa. Our duty now will be to keep it out permanently," the told members of the committees of doctors and other health workers.

The formation of the committees was announced in a meeting at the Institute of Health Sciences lecture theatre in Mbabane vesterday Dr Zia Islam, chief of the WHO team for E pide miological Surveillence and Disease Control, is currently in Swaziland to assess the situation and assist the government in the drawing of control programmes and see what assistance WHO may offer.

Dr Islam's headquarters in Nairobi was contacted by the Ministry of Health immediately after a cholera case was reported in a village near the Swaziland border in the south.

He flew to Swaziland at the weekend "on an urgent visit." He will also assist in the formation of programmes for training personnel to manage the situation.

"You see people in Swaziland have never had this sort of thing before. They do not know how to identify cases and need assistance," Dr. Islam, who will be going back to Neurobi on Friday said.

The committees are officially called "task forces". There is a central task force which will report all developments to a Naposal Cholera Control Committee. The central task force will be broken down into four district task forces.

The district task forces will break their organisation into smaller regional committees which will comprise of 10 volunteers in each chieftaincy, but this may be flexible to suit conditions in specific grounsstances.

This operation is called "Alert phase." The function of the village committees will be to work as watch dogs in their respective areas and to assist in making sure that these is prompt notification of duarrheon cases, work with the village health workers to remove all conditions that may cause

epidemics such as construction of toilets and starting clean water

projects.

These committees may stay permanently even after the cholera scare is over, in fact they will be virtually responsible for watching any conditions which may cause any kind of ep lemic which they may see as threatening their respective areas.

The meeting was told that in case of an outbreak of cholera, patients should be promptly brought to the nearest classe or any other permanent structure where they may be attended to without delay. These will include school buildings during school holidays, tinkbundh buildings or any other available premise including disused buildings.

In the available buildings which may be donated by anyone, the surveillence teams will keep their supplies of drugs and cher equipment and even beds for patients and health workers on the field.

Yesterday afternoon, Dr. Tshabalala and Dr. Islam visited a number of laboratories to check if they had adequate supplies. Dr. Tshabalala said the army was patrolling the borders. More details will be published later.

#### BRIEFS

CHOLERA IN SINGIDA--Cholera, which is affecting the regions of Singida, Shinyanga and Tabora, has killed 200 people since its outbreak. Reports presented to a meeting of leaders of the affected regions at Nzega, Tabora region, say many patients suffering from the disease have been admitted to various hospitals for treatment. According to these reports, the disease has killed 100 people in Shinyanga region, 63 of whom are from Maswa district, which has 92 patients in 15 villages to date. Shinyanga Urban had 33 deaths during the same period and four others died in Bariadi district. In Singida region, where the disease has hit 14 villages, the death toll stands at 94, while more then 800 people have been admitted at centers set up to fight the disease in Iramba and Sinida districts. On the situation in Tabora, the meeting was informed that 7 people had died in (Ivimba) district in the past 4 months, while 13 people were receiving treatment. [Excerpt] [Dar es Salaam Domestic Service in Swahili 1000 GMT 18 Nov 80 EA]

UGANDA

# BRIEFS

SLEEPING SICKNESS UNCONTROLLED--Iganga (Uganda)--The world's worst outbreak of sleeping sickness is out of control in a 2 500 km² area north of Lake Victoria, according to World Health Organisation officials here. About 100 cases a day are being reported, they say, and the total for the year so far is close to 15 000. About 200 people have died from the disease. [Text] [Salisbury THE HERALD in English 26 Nov 80 p 11]

# RIVER BLINDNESS RESETTLEMENT SCHEME IN TROUBLE

Lond in WEST AFRICA in English 17 Nov 80 pp 2303-04

[Text] John Madeley describes difficulties that have arisen with an Upper Volta scheme connected with the eradication of river blindness.

AN INTERNATIONALLY supported wheme to resettle families in Upper Volta appears to be going seriously wrong. The families are being resettled in Volta Basin valleys which has been cleared of the lineage carrying blackly.

The costs of the scheme have now reached astronomical proportions chiefly because of the complexity of the resettlement programme itself Soaring costs are now making necessary a rethink of the entire programme. But whilst escalating costs are one factor equally serious to that the scheme it not working out as it was niteralled.

Resettlement in the valleys has been made possible by the success of the first stage of the Onchocerciaus Control Programme Set up in 1974, this £120 million programme is one of the most ambitious development schemes ever mounted it aims to eliminate the blackfly which bites local people and causes conclude eccusion (treet blindness).

For generations the disease has driven people from fertile valless and it has long been recognised as a major constraint on economic development in the area.

Seven West African countries are resolved in the programme — Upper Volta. Chana Ivors Court Niger Topo Benin and Mali. The World Health Organization are co-ordinating the programme the innjunction with other international agencies and aid donor countries.

The OCP operates through helicopters which spray insecticides on the waterways of the region that are known to contain the breeding grounds of the blackfly. In total the OCP's zone coven \*00,000 square kilometres in the Volta Basin

Over the period 1974-1979, a dramatic reduction in blackfly was recorded. At one point on the Leraba River in the Volta Basin, the OCP monitoring team caught 114 flies over an 11 hour period in August 1975. In August 1979 the team caught only 4 flies at a similar 11 hour monitor. All the countries involved in the programme have reported a big decrease in biindness among young children.

Resettlement in the Upper Volta valleys began in 1979, several years ahead of schedule, with an FAO World Bank European Development Fund scheme in the Diehouhougous region. L'Amenagement des Vallees des Voltas (Volta Valleys Planswas, then launched and given overall responsibility for resettlement.

Extensive studies were first of all carned out by the sponsoring organisations to ensure that people were resettled on an economically viable hash. The sponsors felt that if was necessary to build an infrastructure that would allow for a sustained level of economic development. Roads were constructed, wells were day agricultural experts and training specialists were called in

Resettled families were given subsidies to buy crops plus fined aid. They were encouraged to grow cotton for sales to the market and maire and sorghum for their own use. Under the scheme each family resettled in the valleys is allocated around 6 hectares (nearly 15 acres) of fand. But a huge problem has arisen because the authorities have been unable to stop families from resettling unofficially in the valleys, and hy-passing the official settlement schegig.

In theory unofficial settlement is cliegal as the land in (technically) government owned

But due to a long tradition of people living in the valleys, the government is reluctant to turn them off the land. Two different groups of people are therefore living uneually ude by side in the valleys, one officially, the other unofficially - much to the embarramment of the authorities. Some of the difficulties have been caused by lack of consultation with families who formerly lived in the valleys and wanted to return Whilst a vast sum of money has been spent on infrastructure, local people have not he. asked for their views about the kind of resettlement they wanted. This has led to tensions and some people did not like the kind of crops they were being asked to grow under the official scheme

Mint of the unofficial settlers are living very frugally, although some are maintaining plots of land on the plains.

"The leason of resettlement so far" said o senior UN official. "Is that we need to ask and trust local people to do more themselves and provide less for them. After all they live here, we are just visitors.

Around 2.000 families have so far been officially resettled in the Upper Volta valleys. But costs of resettling families are now thought to have reached over \$50 million or \$25,000 per family. Costs are therefore running at over \$4,000 per hectare of land. Such astronomically high costs are causing both the Upper Volta government and the international and agencies involved to think again about the scale of infrastructure that is needed. The experience of neighbouring countries may serve as a useful guide for Upper Volta.

Tago is also resettling families who were driven from the valleys by river blindness. The Tago government have decided to cut down on their original resettlement schemes and mount instead a more modest programme with less infrastructure. One thousand families have been resettled in the valleys of Tago at a cost of around \$12,000 per familis.

In the Ivory Coast there was less exodus from the vaileys because of river bindness and a more developed infrastructure already existed. This means that families are moving back at a lower cost. The Ivory Coest government appropriated land in some of the vaileys cleared of blackfly to develop sugar, rice and cotton. Most of this new production is controlled by state owned companies.

The UN official admits that the resettlement scheme in the Upper Volta has become top heavy with international bureaucracy and that future schemes should be more simple and cost less. Resettlement is still in its early stages, both in Upper Volta and in neighbouring countries. Over a million people are thought to have been driven from the valleys in the seven OCP countries.

An aid agency official who spent several years in Upper Volta said that the resettlement programme was a "classic case of what seems to be a perfectly good and logical project going wrong. There is plently of goodwill behind the project but you still have enormous problems. The sponsoring organisation have no doubt done their best. Part of the trouble is that the whole question of how resettlement takes place is so complex that it is difficult to work out all the different factors beforehand."

The programme sponsors are having doubts about the wisdom of encouraging cash crops such as cotton among communities that have no tradition of such agriculture. In the light of results so far it seems probable that people still awaiting resettlement will be consulted more and that spending on infrastructure will be lower.

Providing the sponsoring organisations learn from the experience of the first stages of the resettlement scheme, then later stages should be more successful.

# VACCINATION CAMPAIGN TO PREVENT EPIDEMICS DUE TO FLOOD

Caracas EL UNIVERSAL in Spanish 22 Sep 80 Sec 1 p 18

[Text] A vaccination campaign for persons who were in contact with the River Guaire during its flood yesterday afternoon is being carried out now by medical and nursing personnel of the Perez de Leon Hospital together with officials assigned to the Ministry of Health and Social Welfare's Region 5.

The campaign was initiated yesterday at 700 hours after conversations with the minister of health, Alfonzo Bencecry and Petare Councilmen Dr Ligia Toro, Antonio Ciemente and Argelia Laya of the Commissions of Health, Community Relations and Public Services.

Points of vaccination are the following: California Sur, San Franciso Street and the 24 de julio district, in Petaro.

According to data furnished by Dr Nolis Caraballo, director of the Perez de Leon Hospital in Petare, up to now hundreds of persons have been vaccinated and have been given instructions to go to the nearest health unit in 8 days to receive the second antitetanus doses.

In addition to this mass vaccination campaign of the inhabitants of California Sur, Barrio La Linea and 24 de julio, the areas of Sucre District and Consucre were declared as the most critical zones. The Ministry of Health has created an emergency center out of all the clinics located in the different neighborhoods of Sucre District to take care of the victims and the children who have contracted respiratory illnesses because they have been outside for many hours. The first cases of gastroenteritis have appeared.

Consucre's Medical Welfare Services Administration has called a state of emergency for its physicians and nurses at the Perez de Leon Hospital and the clinics to take care of persons coming from areas declared in emergency.

9341

#### BRIEFS

YELLOW FEVER REPORTED—Guiria, 26 Sep—A case of jungle yellow fever has caused the death of a 20-year-old man in a hamlet of the mountainous area of San Antonio de Irap, in the state of Sucre. Faced with this situation, the Yellow Fever Division of the Ministry of Health ordered immediate mass vaccination in the districts of Marino and Valdes, in Paria. The information was supplied by Dr Jacobina Coa de Galviz, director of the Guiria Hospital, who confirmed the yellow fever case, though she did not release the name of the victim, whose body is in the central hospital in Carupano. Dr Coa de Gafiz reported on the case of yellow fever to the president of the Guiria city hall, Prof Salvador Risques and to William Mijares, a teacher. "It is a typical case with high fever and black vomit," the doctor said, adding that "this case could not have come from Trinidad because there is no yellow fever there, only dengue." The case was discovered because the ursine howlers and other monkeys started dying en masse in the mountains of San Antonio de Irapa. The ursine howlers serve as hosts to the virus which propagates the yellow fever. [Text] [Caracas El NACIONAL in Spanish 27 Sep 80 p D-19] 9341

#### BRIEFS

MEASLES VACCINATIONS—On Tuesday, 5 August, the expanded vaccination program began a measies vaccination campaign throughout the subregion of Likasi. The campaign is aimed at children between the ages of 9 and 36 months — that is, those born between 5 August 1977 and 5 December 1979. The vaccination requires a single dose and is good for life. Families with children in this age group are therefore asked to go to the following locations (not reproduced) on the dates set, taking their vaccination cards, infants' consultation cards and other information showing vaccinations already performed with them. Officials emphasizes that the purpose of the campaign is to reduce infant morbidity and mortality in this age group most exposed to measles. In addition, it is free. [Excerpt] [Lubumbashi MJUMBE: LE QUOTIDIEN DU SHABA in French 6 Aug 80 p 3] 11,464

INKNOWN DISEASE IN FESHI—In its broadcasts at 1300 hours (capital time) yesterday, the Voice of Zaire/Kinshasa announced the outbreak of an unknown disease in the Feshi zone in Bandundu. The disease, detected in August, paralyzes the lower extremities of persons afflicted. According to information from Dr Kambale, medical inspector of the Bandundu region, 11 cases of the disease have been found so far, but no deaths have occurred. There is therefore no cause for alarm since treatment is yielding encouraging results. Dr Kambale says that no technical information is available about the disease, given the fact that the virus or carrier is not yet known. However, the medical inspector of Bandundu announced that the Public Health Department will soon send a team of experts to Feshi to study the origins or causes of the illness. [Text] [Lubumbashi MJUMBE: LE QUOTIDIEN DU SHABA in French 18 Sep 80 pp 1, 6] 11,464

#### ANTHRAX OUTBREAK KILLS WIFE OF CHIEF

Salisbury THE HERALD in English 25 Nov 80 p 4

[Text]

CHIEF Chilimanzi's wife, believed to have been in her sixties, died in the Chilimanni tribal area on Saturday from anthres.

Thirteen other cases of tribespeople - men, women and children men,

women and children—suffering from anthrax are being treated in St Theresa a hospital which is in the TTL.

This was confirmed yesterday by Dr George Lochrie the Midlands provincial medical officer of health.

"Thirteen cases ocur-ring at Chilimanzi, all in one place, is of course serious, but it appears to be limited," he said

The 13 cases were all from one place. Maximba Kraal, and although it appears that Chief Chilimanzi's wife died somewhere else I think she must have been there or got the meat from there. Most of the notifications say that the people at meat they bought from Maximbe' Kraal."

He said that, apart from the odd case, anth-rax had been virtually un-known in the Chilimansi area.

Dr Richard Clatworthy, the provincial veterinary officer, said his men were working through a number of TILs systematically doing vaccinations against anthrax and foot and mouth disease. They were just finishing in the Seiukwe TIL.

Anthrax vaccine was available for anyone who wanted it at 2c a dose. "People must realise that the carcases of animals that die suddenly must not be eaten or handled," he said "We will probably bring our vaccination campaign in that area forward."

# EARLY RAINS INCREASE THREAT OF MALARIA

Severe Outbreak Expected

Jalistury The HERALD in English 14 Nov 80 p 4

"age

MALARIA is Zimbabwe is expected to be "severe" during the coming fains, health officials have re-

ported. Dr D. V. Clarke, direc-tor of Blair Research Laboratories in Ballabury, said yesterday: "For some years now the combina-tion of poor rainy seasons for the mosquitoes, and the widespread use of long-acting insecticides to kill mosquitoes have kept maiar.a te moderate

"With the early raims of this season and the late rains of the last, we can expect to have severe maiaria esrly in the new year, and in first some cases are already being reported

Dr Clarke described malaria as being "epi-demic" in Zimbabwe dur-ing the summer months. "The illness is acute, it is always serious, and it can be fatal," Dr Clarke said. "Early treatment is necessary if a person feels he has maisris, it is best to consult a doctor or the nearest clinic

Only small parts of the Eastern Highlands and some municipal areas were free of the disease. he said

However, if diagnosed in time. maiaria was one of the most easily treated tropical diseases. Anti-malarial drugs were sold at many rural stores and

all chemists, he said De Charke said although the Ministry of Health programme would reduce the chances of contracting malaria in some areas. " is up to individuals and the parents of ch.ldren to

the disease.

The City Health Officer for Salisbury. Dr Tony Davies, said the chances of anyone contracting malaria within the municipal area were "very smail", but advised anyone leaving the city amits to take anti-maisrial drugs for four weeks after leaving the malartal area.

Alarming Pesurgence

Salisbury THE HERALD in English 15 Nov 80 p 4

[Editorial]

MALARIA is a dreadful killer. Last year it was estimated that a million people, mostly children, would die of the disease in Africa.

Malaria was reported to be making an alarming resurgence following a breakdown in control measures in many countries and the emergence of mosquitoes which were resistant to in-ecticides.

In Zimbabwe the health authorities established a fine record years ago for their pioneering work in the control of malaria and in the practical application of these measures.

The war and the movement of people had its effect and towards the end of the last rainy season there were warnings that we were suffering the worst malaria outbreak for many years.

Now a tresh warning has been given that malaria is expected to be severe during the coming rains. Anti-malarial drugs are highly effective. Townspeople going into the country should ensure they use them.

Z IMBABWE

# BRIEFS

CHOLERA CERTIFICATES -- There was no need for travellers entering Zimbabwe from South Africa to be in possession of valid cholera vaccination certificates, a spokesman for the Ministry of Health said yesterday. [Text] [Salisbury THE HERALD in English 26 Nov 80 p 2]

#### DEADLY CANINE DISEASE REPORTED SWEEPING NATION

Sydney THE SYDNEY MORNING HERALD in English 22 Oct 80 p 3

[Article by Richard Macey: "Deadly Dog Disease Rampant in Sydney"]

[Text] Canine parvovirus, a disease which broke out in pockets of Sydney last June, killing many healthy dogs in less than a day, has spread all over Australia and now is acute in Sydney.

Dr Margaret Sabine, associate professor of veterinary virology at the University of Sydney's Department of Veterinary Pathology said yesterday that dogs with the disease often go off their food, become depressed and start vomiting. They also have diarrhoea containing blood.

"Medical treatment should be sought as soon as the dog looks depressed or goes off its food," Dr Sabine said.

She said that although gastroenteritis had many causes, research on specimens sent by veterinarians to her department suggested there had been an "explosion" of parvovirus in Australia in the past few months.

In June only about 30 per cent of specimens sent to the university by veterinarians were found to have parvovirus. This had soared to about 80 per cent in the past few weeks.

"It's a very tough virus and it must be airborne," she said.

Sydney veterinarians reported yesterday that the disease was widespread although it. intensity varied from area to area. Mr Robert Ratcliffe, of the Australian Veterinary Association, said the number of cases reported in the north-western suburbs appeared to be declining.

But a Guildford veterinarian said the outbreak was sweeping western and southwestern suburbs in epidemic proportions. "We have never seen anything like it. Last week we thought it was letting up but now it's back on again," he said.

A St George veterinarian said that even isolating dogs from other possibly infected animals would not necessarily prevent the disease spreading. "I know of two dogs in a 15-storey block of flats who got it," he said.

A veterinarian in Sydney's northern beaches area said the disease appeared to be "settling down" there.

"But the last two weeks have been a complete disaster. It has been the worst outbreak I have seen in 18 years," he said.

Mr Robert Cowen, veterinarian at the RSPCA's shelter at Yagoona, said the virus concerned appeared to be very stable and could be picked up by a dog who simply sniffed or licked where another dog had been months or even a year before.

# THREE-YEAR HOG CHOLERA IMMUNIZATION PROGRAM BEGUN

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 15 Oct 80 p 26

[Text] This month, in a major effort to surmount the sanitation barrier imposed by the importing countries on the entry of Brazilian pork, Agriculture Minister Amaury Stabile will launch a 3-year vaccination program against hog cholera, for which 430 million cruzeiros have been allocated. Initially, the campaign will cover only Rio Grande do Sul, Santa Catarina and Parana, where most of the hogs for export are raised, according to the minister.

in addition to this health measure, Minister Stabile has directed COBAL [Brazilian Foods Company] to buy up all the surplus pork held by the cooperatives and in cold storage. The purpose is to withdraw the unmarketable surplus, estimated at about 40,000 tons, to bring about a recovery of prices at the producer level. For this purpose, COBAL will use the funds that have not been spent to form control stocks of beef. Initiation of the vaccination campaign is only awaiting the contracting of some technicians for laboratory work, to check the serological status of the herd and the quality of the vaccine. The technicians explain that vaccination will not be obligatory, because the Ministry of Agriculture does not have the infrastructure to monitor compliance, and also because some of today's breeding farms can wean a hog per week, which greatly increases turnover in the herd.

Hence the success of the campaign will depend, in effect, on the conscientiousness of the producer. According to the agronomists, this does not present a large problem because hog raising is a highly scientific operation in the region where the campaign will be concentrated initially.

It is Minister Stabile's intention to encourage health officers of international agencies to visit periodically to observe the vaccination process, so these officers can give their endorsement in the bilateral negotiations between Brazil and potential importers, aimed at lifting the health ban.

6362

#### PROGRESS OF TSETSE FLY UNDER CONTROL

Beira NOTICIAS DA BEIRA in Portuguese 26 Oct 80 p 3

[Ixcerpts] The tsetse fly has remained stationary in Vilanculos for the last 12 years, there being no signs at present of its advance to the south. This is the conclusion that can be drawn from a scientific study the preliminary phase of which was completed recently at the Experimental Center for Combatting Tripanosomiases, at Muapsa, in the province of Inhambane. That study is aimed at determining the ecological and geoclimatic conditions that have contributed to the progressive advance of the tsetse fly toward the south during the last 33 years, starting from the basin of the Save, the zone that until 1947 was considered the most infested by the vector of sleeping sickness in man and nagana in animals.

The aforementioned study, completed by a team of FAO scientists attached to the Ministry of Agriculture, is a part of the LI-2 project of control of the tsetse and of animal tripanosomiases. It has made it possible to determine that in that part of the district of Vilanculos the fly has remained stationary for the last 12 years, with no indications of its advance toward the south along the Muapsa-Funhalouro route.

According to Dr George Taylor Lewis, coordinator of the LI-2 project, the results of this study show that the factor that is keeping the tsetse fly (particularly the species known as "morsitans") in that region is the ecological and geoclimatic conditions that characterize the Muapsa area.

On the other hand, the lack of bovine cattle (in particular) and of other animal species in the region between Muapsa and Funhalouro is another principal factor that has impeded the advance of the fly, since the vector lives essentially on the blood of the livestock population, and secondarily on man and the wild fauna.

#### 60 km x 2 km Barrier

Although the studies will continue, according to explanations given by the FAO expert, another conclusion that the preliminary tests have made it possible to reach is the ineffectiveness of constructing bariers to impede the fly's advance. Such a barrier, involving the decontamination of a zone 2 km in width and 60 km in length, starting from the road that links Mapinhane to Maapsa and proceeding in the direction of Mabote, has now been found unnecessary due to the fact that the fly has not advanced to the south in recent years and in consideration of the fact that the tsetse fly can fly a distance of 2 kilometers without difficulty.

(SO: 5400

## CYSTIC TRACEBACK SCHEME AIDS IN HYDATIDS PREVENTION

Christchurch THE PRESS in English 17 Oct 80 p 18

Article by B. M. Taylor, field advisory officer (hydatids) with the Ministry of Agriculture at Ashburton

/Excerpts7

Since March 1980, a cistic traceback scheme to complement the hydatids eradication pro-gramme has been in oper-ation in the Westland dis-

ation in the Westland distinct. This system also applies throughout the rest of New Zealand. Close co-operation between freezing works, meat inspectors and the National Hydatids Council has been necessary for the schemes a success.

scheme's success.
When a farmer submiss
stock for slaughter and
hydatids infection is found -this includes true hydetids and sheep measies pued by the freezing company to the National Hydation Council. The council then notifies local hydateds control officers of infected ines of stock within their areas. The purpose of the CTB

(cystic traceback) scheme is to make farmers aware that they have a hydatida problem and is designed to assist such farmers in preventing further infec-

their properties.

Lack of adequate facilities on farms accounts for the majority of these infections and these are listed below in order of importance.

(1) Lack of adequate home killing facilities
(2) Inadequate offal and carcase disposal facilities

(3) Poor dog control feeding practices

Since March there have been a total of 39 systic traceback notifications retraceback notifications re-ceived from the National Hydatids Council relating to the Westland district. Of these 23 have been in-vestigated by the hydatids control officers and livestock officers.

A summary of these investigations shows -

Home killing facilities: one satisfactory: 22 unsa-Listactory.

Office and carcase dis-posa, facilities: 12 satis-

factory; IT unsatisfactory.

Dog control: 14 satis-factory: nine unsatisfactory.

Dog feeding: 18 satisfactory; five unsatisfactory

From these figures it clearly indicates that all farmers with cystic infection are practising some form of home killing. As farm slaughtering remains the main cause of hydatids infection in dogi in New Zealand, and almost without exception in Westland, serious faults exist which permit rein-fection to occur within dogs. This, in turn, results in cystic infection in stock, which becomes ap-parent when slaughtering takes place.

The cystic tracebank scheme will continue soperate in its present form, and where notification of cystic infection is received will result in farm visits being made he hydatids control officers and livestock officers to investigate possible causes of infection.

630: "4"1

# LICELY ATTON LAID TO REDUCE FOOTROT IN SHEEP PLOCKS

Teler to THE PRESS in English 24 Oct 80 p 16

190017

Regular Vection on combined with a concerned common with a concerns to select on policy, while the incident of the incident of the incident of the many Small country of Agnicultures was according research that in the North Can echury Federated Farmers (as)

Speaking to members of the provincial meat and wool executive. Dr Sker-man had be had been examining the disease in neveral flocat in the North Izland for nearly

three years.
The research had reveafactors, all of which needed, and would receive, fur-

ther investigation.
He said the 'radiosonal methods of desiral with

frought — foot paring and foot bathing with formalia — were laborious and to-offerive. Running therep turningh a foot trough was satisfactory as a pre-ventitive measure, but this bride down at times when there were not available herouse of lambing or tup-

The trials had shown that vaccinated sheep had constructed footnet to a far leaser degree than sheep in the comarti flock. In both the Romney and Correctate flocks ottamined

there was a marked differformer between the vaca noted and unvectmented D'UNCH

Dr Saerman terd he did not have total faith in the vaccine. It was not exite potent enough and ways of improving the vaccine were being examined.

Close records kept of

Close records kept of every sheep involved in the experimental flocks re-vealed that to a degree

the trouble reight he innerted.

In the control flecks, which were unvaccinated, same sheep never contracted the disease, in soile of its high incidence rates, over the 24-year period.

Dr Skerman said be and his staff had started to assemble information on the genetic factors affect-

the genetic factors affect-ing footroi.
All types of feet defects would be examined and the transference of prostored, he said

It could mean farmers would be able to se ect vely eliminate susceptible stock from their flocks and this would go a long way to eliminating the disease from many flocks

Measure o vaccination with a bonneter on it during the year, and thoughing in five to 10 per cent from aim. Would act as a satisfactory control measure. Dr Saerman said

# BRIEFS

CATTLE DISEASE--An exotic cattle disease has been detected in Nicaragua which constitutes a threat to the other Central American countries. The director of Guatemalan livestock services, Francisco Bovadilla, reported that Guatemalan health authorities have already taken initial preventive measures against the disease, known as bovine herpetic mammalitis, which seriously affects dairy production. [Guatemala City Radio-Television Guatemala in Spanish 0400 GMT 25 Sep 80 PA]

HOG CHOLERA-Spokesmen for the Agriculture Ministry this afternoon announced that the illness affecting pigs in some parts of Chinandega has been identified as hog cholera. The regional international organization for plant protection and animal health has informed the other Central American countries that the disease is not African swine fever, as had been announced earlier. [Managua Radio Sandino in Spanish 0300 GMT 4 Nov 80 PA]

# COPPERAELT STEPS UP DRIVE ACAINST RABIES

Lusaka TIMES OF ZAMBIA in English 19 Nov 80 p 5

(Text)

THE Copperbeit has braced itself for the eradication of rabies following the arrival of thousands of doses of vaccine from the Ministry of Agriculture and Water Development in Lusaka.

Provincial verrinary officer, De Porsier Mungaba, said yesterday 7,500 doses had been dispatched to Kitwe where a vigorous antirubies campaign was launched Tast August fullowing the death of two

Launching the campaign in August. Dr Mungsha said the department needed about 5 000 doses for Eirwe which was still under a temp order imposed last year and that more help was needed from companies and other organisations.

Kitwe veterinary officer, Dr Lesley McLeod, confirmed the arrival of the 7,500 dosen saying Nchanga Consolidated Copper Mines had donated another 3,000 towards the campage.

She said the campaign started in the mine areas where vaccination of dogs had already been completed. With the arrival of the doses from head office we hope to move to other areas with the beip of the council's health department." De Millerd said.

The campaign would include publicity in pre-determined

The department also intends to put up shows in cinemas and other public places to make residents aware of the importance of having their dogs vaccinated

The second stage of the campaign would be to destroy all erray dogs to the city after coentieties the vaccination exercise, she

When he announced the campaign. Dr Mungaha said the department was throwing all its resources into it because at annotation innocetit people to continue dying of rabies—a disease which can be eradicated with more coupe

in Chingola, the council in conjunction with the mine management board has declared a tie-up order and warned that stray dogs would be taken to the Society for the Prevention of Craefty to Animals.

Live + 9000

# BRIEFS

CATTLE VACCINE FOR KALONO -- The veterinary and teetse control department has sent more vaccines to Livingstone to control the spread of the foot and south disease at Sikaunze in Kalomo district. Dr Samuel D'cruz, a senior veterinary officer in Luanka, said in Livingstone yesterday that everything possible was being done to contain the disease. Apart from roadblocks to stop livestock movements, the department was vaccinating animals to protect them from the killer disease. But Dr D'cruz said the measures would succeed only if livestock owners cooperate with veterinary officials. He appealed to farmers not to move their livestock to other areas. He said with cooperation, the disease could be controlled in time, Dr D'cruz, who said the disease must have come from a neighbouring country since it was first detected on the banks of the Zambezi river, could not say how many animals had died in the past two years as a result. He did not say how long it would take to control the disease. With full cooperation from the public and full dedication to duty by all on our side, it should not take long before the situation is brought back to normal," he said. The Southern Province has been experiencing foot and mouth disease outbreaks for the past two years, resulting in the cancellation of some district agricultural shows. [Text] [Lusaka TIMES OF AMBIA in English 20 Nov 80 p 5]

(50): 5400

# TIS THOUSAND ANTHRAX CASES REPORTED

Salisbury THE HERALD in English 14 Nov 80 p 3

[Text]

ZIMBABWE may have up to 50% of the world's anthrax cases according to the latest report of Salisbury's Medical Officer of Health. A 1977 lexibook, mentioned in the report, suggests that worldwide there are between 20 000 and 100 000 cases of the disease annually. A rough estimate of cases in this country stands at Only 500 of these were admitted to the hospital in Salisbury, where about 1% died

The report stated that, at the moment, the number of cases is down and that there were no deaths caused by anthrax during the July September quarter. The City Health Department is, however, continuing to collect and collate information on the epidemic from as many centres in the country as possible.

The single most common cause of death is still

measies During July-September 483 cases were admitted to Salisbury hospitals. There were four adult females, six adult males and 473 children. Eleven people died

At the beginning of the year approximately 10 cases were being week admitted. By October the number of cases per week was 50. Almost all were unvaccinated children who had arrived in the city from rural areas. The report said that where the response to the vaccination campaign had been good there is practically no measles at all Unvaccinated rucal children, however, almost invariably contracted the disease within a few weeks of arrival in the city

After measles, the second most common cause of death is tuberculosis in Salisbury, during July-September, 190 people were admitted with tuber-culosis.

There were 178 adults and 12 children. Four people died.

In the past, said the report, city health officials had regarded the number of cases on viral hepatitis as a sensitive indicator of the general state of hygiene in the city. Statistics given in the report indicate that the number of the cases is decreasing. In the first quarter of this year 149 cases of tboth intectious and serum hepatitis) were admitted in Salisbury hospitals. In the second quarter there were 130 and in the third quarter.

deliveries have to be charged. The Custom Collection Depot eliminates this cost for those operators driving to town on other business. It also enables recognised dealers to maintain their supplies independently of Nathrew's busy delivery timetable.

c.io: 5400

# ANTHRAX HITS ALL FARMING AREAS

# Salisbury THE HERALD in English 23 Nov 80 p 8

[Text]

ZIMBABWE is in the grip of its worst epidemir of anthrax.

cattle have need wiped out the bacterial this year

And an incredible 10 000 people have been infected — an entimated 100 have

The disease which used to be confined to isolated pockets in tribal trust lands has spread throughout the country

It can now be found in ery single TTL and many commercial farming 250 30

The cost in cattle losses and human misery is enormous But the nation is now fighting bank

Vets are carrying out mass vaccidation pro-grammes sweeping rectnodically through each carry out their own cam-Da Ens

Anthrox 18 & powerfu barteria which attacks alwarm blooded animals and man

Animais tie from blood disease while humans get

terits of contuning to the of the banters can lie active in the ground for up to 40 years

Any animal grazing over a clut is liable to cutog the disease

And humans eating or just coming into contact with intected meat or nudes can die

Most human cases are caused by people eating infected meat.

Anthrax was under con-trol before the war.

"We used to get isolated outbreaks — nothing dis-astrous, said Mashona-land veterinary officer Dr Robert McKenzie.

"We would swoop into the area and carry out vaccinations annually for three years. That would conquer the problem for

the next 10 years or so. There were an where anthrax would arise periodically. But it was never widespread. Today it's just everywhere We re suffering the worst epidemic ever known in this country "

The disease was spread as cattle — many of them infected with anthrax — were illegally moved around the country because of the breadown of

Control in rurs; areas
The veterinary services
now have a momentous
task to get on top of the

willer disease again.
"It will take us three years." said Dr McKenzie

"We've injected from a quarter to a third of the national he'rd since national August"

vaccination

A vaccination programme was launched in Russke TTL near Goromozi, last week. The word got around on the "hush telegraph" that free jake would be given to all cattle at Dudno dip and hundreds of head

mere driven in
Many of the dozens of
tribesmen who came walked for many kilometres
setting out with their
cattle, long before first The injecting was

As the cattle were driven into the dip field assistant Paul Jomno Jabbed away with an auto-matic syringe.

He could inject meveral hour at a cost to the Government of two cents

The mombes hardly felt a thing as the short needle pierced their becks

"Vets even took the opportunity to give anti-rables jabs to the many dogs that had come to the dip with their masters

we don't have any problem at all getting the people to come for inficer Sean Hundermark

CS0: 5400

ZIMBABWE

## BRIEFS

CAT FLU VACCINE SHORTAGE--Bulawayo--Bulawayo vets have run out of the cat flu vaccine being used against the killer dog disease canine parvo-virus. A sudden rush by the public to have dogs vaccinated had exhaused stocks of the cat flu vaccine, the chairman of the Matabeleland branch of the Zimbabwe Veterinary Association, Dr Hugh Roberts said yesterday. "There is still no need for people to panic. No cases of the disease have yet been officially diagnosed and backed up with laboratory tests in this country. The whole idea of the vaccination programme was to prevent it taking hold if and when it did arrive, said Dr Roberts. "It will be a couple of weeks before new stocks of the cat flu vaccine arrive in Bulawayo and the message is for people not to worry but to be patient. "It is better to run out of the vaccine now than when we are in the middle of an epidemic," said Dr. Roberts. [Salisbury THE HERALD in English 25 Nov 80 p 4]

GOVERNMENTS PERATE TO FIGHT LOCUSTS

Yaounde CAMERDON TRIBUNE in French 9 Oct 80 p 3

[Article by T. E. E.: "Bold Action, But...."]

[Text] The fight against the migratory locust did not just begin. For years, African governments have been combatting this insect, which some mistakenly call a grasshopper. When OICMA (International African Higratory Locust Organization) was set up in Kano. Nigeria. on 25 May 1962, over 20 African nations, including Cameroon, proposed to wage a preventive fight against the devastating insect on a rather broad international basis.

In the course of the work of the 11th region conference of the FAO for Africa, held in Lome (Togo) from 16 to 27 June, the participating countries reaffirmed their determination to fight migratory locusts, a scourge that poses a dangerous threat to our food supply.

Is it indeed necessary to recall that Africa's food security will never be assured through imported products? This truth eloquently explains the different actions undertaken by the Cameroon an Government, whether they be unilateral, bilateral or on an international scale, to check the locust invasion.

On the specifically domestic level, the National Committee To Fight Migratory Locusts and Birds has been formed. The fact that the committee is made up of high officials shows rather clearly the government's desire to check the plague effectively and as rapidly as possible. One is justified in thinking that everything possible will be done to ensure the success of the operation.

On the bilateral level, Cameroon and Nigeria undertook actions several months ago simed at halting the current invasion of locusts. Our country must finance a minimum of 100 hours of helicopter time and set up a stock of kerosene products in the Ngaoundere and Tibati area.

In order to wage the joint fight against migratory locusts, teams travel freely between Niverla and Cameroon. Unfortunately, the same is not true of Chad, the victim of a tratribidal war for several months. As a result, swarms of migratory locusts are paining a foothold there, are developing and cross the lake to wreak havor in neighboring countries, particularly Cameroon and Nigeria.

This situation, which reminds one of the myth of Sisyphus, is obviously enough to discourage some, for when the governments of Nigeria and Cameroon make sustained efforts to fight the insects, they take refuge in Chad, recross the border to sow panic and then return to Chad, and the vicious circle begins all over again.

Actually, the problem becomes a very sticky one because none of the regions of the infested countries can believe itself to be out of danger as long as any of them still harbors the dangerous insects. Things are further complicated by the fact that no campaign is currently being waged in the Lake Chad basin.

When one realizes that a general invasion by the locusta migratoria africana endangers the food supply, not only of the countries infested, but of the entire region as well, one then has reason to be truly frightened.

11.464 CSO: 5400

## NEW LOCUST LANDRGENCY LOOMS OVER AFRICA

London WEST AFRICA in English 17 Nov 80 p 2295

[Text] Offers of funds and technical assistance are being received from Britain. West Germany and elsewhere in response to a new locust emergency developing in Africa THOMAS LAND reports from Rome.

WEST AFRICA is facing a major locust emergency in the wake of a series of other food disasters across the continent caused by war and drought

The United Nations' Global Information and Early Warning System in Rome has recorded the presence of yet unspecified numbers of swarms "presenting a grave threat to agricultural areas in north-east Nigeria, northern Cameroon, northwestern Chad and possibly Niger, the Central African Republic and the Sudan Provided that national and regional campaigns are carried out immediately and successfully, there should be a very substantial reduction in the African migratory locust populations and in the threat of serious crop damage in the area Such action would in turn reduce the threat of a major plague

Urgent national locust control operations are progressing with advice from the UN's Food and Agriculture Organisation FAO has asked specialists at the world's foremost scientific research institutions concerned with locust control to stand by reads to fly into the crisis area at short notice.

FAO has released \$550,000 to provide helicopter services, consultants, equipment and supplies to strengthen local capabilities in the face of the upsurge. The UN Development Programme has also raised \$310,000. Britain is providing vehicles, aircraft spray gear and consultants. West Cicrmans has offered 10,000 litres of concentrated insecticides.

During previous plagues of the migratory incust (Locusta migratoria Migratorioidea)

between 1928 and 1941, most African countries south of the Sahara were invaded by swarms. The insect feeds predominantly on grasses, both wild and cultivated Specialists reckon that, in the present emergency, "major control efforts will be required to prevent the eruption of a major plague."

At stake are the cereal yields of a continent already suffering the effects of severe drought as well as war Edouard Saouma, the FAO director-general, has forecast. We are on the verge of simultaneous human disaster in many countries of an unprecedented character, with all the terrible implications of the consequences of inaction.

The first signs of the present locust emergency were apparent as early as 1979 when swarms of the migratory locust breeding in the Lake Chad basin moved south-west and reached eastern Nigeria and the Adamawa massif in Cameroon By April this year, some swarms reached Benue and the Cross River States in Nigeria nearly 1,000 kilometres away from the outhreak area. Being so far south, they encountered favourable breeding conditions and went through two generations in rapid succession.

Because of difficulties of ground access and restrictions of helicopter surveys, specialists failed to assess the extent of the infestation area. Control operations were limited and hopelessly inadequate in terms of the developing emergency.

By June, a new generation of adult insects appeared and started to breed, eventually

moving further afield Further breeding occurred also in Nigeria and Chad, believed to result in the production of much larger concentrations of adults during October and November. These are likely to become more concentrated as vegetation slowly diesecution their areas and they will form large swarms.

The national control operations are co-ordinated by the International African Migratory Locust Organisation "Since other agricultural problems loom larger when recessions of the locust plague occur. it is easy for even the best-constituted control system to go rusty or to break down. especially in poor countries with small resources, says a specialist paper published by the UN's World Health Organisation in Geneva. "Experienced operatives are recalled to attend to other tasks, vehicles and planes equipped for spraying deteriorate and are not replaced. stocks of expensive pesticides like dieldrin and malathion (the most effective locust killers) run down and, most important, the need for perpetual vigilance is sometimes forgotten

Until recently, much of the specialist world's attention was focused on the desert locust (Schistocerca gregaria) which two years ago threatened an immense area comprising 50 countries from the west coast of Africa to the Himalayas. The present emergency is potentially just as serious as the last, and the populations of many countries which may be affected are totally unprepared to meet a new agricultural disaster. Mr. Saouma has listed the other causes for anxiety: "In addition to the famine in Uganda, prolonged drought continues in several Sahelian countries. Dibouti and southern Ethiopia In southern Africa, Angola, Botswana, Malawi, Mozambique, Zambia and Imbabwe have also suffered severe drought. Kenya and Tanzania, which were self-sufficient in recent years, now face (food) shortages. Somalia taces the double crippling burden of delayed and erratic rains and the largest concentration of refugees in the world

#### PROGRAM TO ESTABLISH MILDEW-RESISTANT WHEAT CROPS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 12 Oct 80 p 53

[Text] (Campinas)—In collaboration with the Jaboticabal Faculty of Agrarian and Veterinary Sciences, the Campinas Agronomic Institute is developing a cornimprovement program, to introduce mildew-resistant strains. The disease began to threaten Brazilian corn production 6 years ago.

Obtained from Thailand and the Philippines, 10 strains that are resistant to mildew (scherospora sorghi) are being grown experimentally at the Jaboticabal school. Initiated by the Agronomic Genetics section, the purpose of the project is to adapt these strains to Brazil's climatic conditions.

Specialists of the Secretariat of Agriculture stress the importance of the program at a time when the government is initiating a campaign to encourage corn production, guaranteeing the producer a minimum of 478.00 cruzeiros [sic] for the next harvest. The secretariat feels the response to the appeal has been "very good," based on figures gathered by CATI (Office of Integrated Technical Assistance Coordination).

In Sao Paulo State, all the available seed stock in the cooperatives and private companies has already been used up. The remaining demand is being met with CATI's own reserves, which can cover only 2 percent of overall needs. This fact alone leads the technicians to predict crops much larger than this year's. The federal government plans to substitute other raw materials, such as corn, for imported wheat in the manufacture of flours for bread baking. The possible spread of the mildew, the great fear of the producers, would certainly endanger the harvest, since the disease is capable of wiping out crops very rapidly if there is no efficient chemical control.

#### Disease

The outbreak of sildew in the United States in 1972 caused \$6 million in damages, but there has been no epidemic to date in Brazil, as the foci have been well identified. According to agronomist Marlene Lima, of the Agronomic Institute, environmental conditions here do not favor the spread of the disease. "A generalized outbreak in Brazil does not appear probable for the time being." Lima said, but added that it was of the "utmost importance" to obtain resistant strains.

Some hybrids evaluated in Joboticabal in 1977 proved to be susceptible to the disease. Thereafter, resistant varieties were introduced through EMBRAPA [Brazilian Agriculture and Livestock Research Enterprise], which sponsored similar studies at various Brazilian scientific institutions. The experiment at the Agronomic Institute revealed that the "swan" and "Thai composite" types, both tom Thailand, are more capable of adapting to the climate. The sele on has already resulted in three generations, and seed can be propagated by I whenever needed. These varieties are available to farmers in the regions viere mildew is occurring.

The new strains show a "good level of productivity," according to Marzene Lima, and their size is classified as intermediate (about 2.10 meters tall). The spikes are cylindrical and the grains are orange-yellow, semi-hard and tolerant to the disease agent, the fungus "s. sorghi." The "Suwan DMR" strain is particularly resistant.

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NATIONAL COMMITTEE MEETS TO TAKE ACTION AGAINST LOCUSTS, BIRDS

Yaounde CAMEROON TRIBUNE in French 9 Oct 80 pp 1, 3

[Article by Isaac Ebwele Ebongue]

[Text] Formed by a presidential order on 19 September, the National Committee To Fight Migratory Locusts and Birds (CNLAA) held its first meeting yesterday, presided over by acting Prime Minister El Hadj Sadou Daoudou.

All ministries and provinces included in the organization were represented by high officials.

The National Committee To Fight Migratory Locusts and Birds pursues three essential objectives: a continuing study of the evolution of the locust and bird situation; the organization of all campaigns to fight such pests; and coordination of campaign activities. The committee's initial budget amounts to 272.6 million CFA francs.

They have come, "they" being the migratory locusts. Since the month of October 1979, OICMA (International African Migratory Locust Organization) has sounded the alarm. In the Lake Chad Basin, in Cameroon and Nigeria, heavy concentrations of locusts were discovered in an area 400,000 kilometers square!

At the present time, Central Africa, particularly the regions of Nigeria and Comeroon, is being hit by the largest invasion of locusts that countries in the scuthern Sahara have experienced since the terrible plague of the years 1928 to 1941, which ravaged 32 African nations.

Obviously, one cannot speak about migratory locusts without immediately evoking the spectre of famine, illness and misery. It is in order to ward off these terrible scrurges that the FAO (United Nations Food and Agriculture Organization), from its African conference held in May in Lome, issued an appeal to the international community for the organization of a global strategy to fight these insects which, in addition to the drought raging in the Sahel, are one of the greatest threats to the survival of Africa.

While waiting for this international aid to be organized, the Cameroonian Government set up its own strategy on two levels. On the international level, it outlined concerted actions with the neighboring nation of Nigeria in order to fight migratory locusts. In July, the Nigerian and Cameroonian ministerial delegations gathered together in Yaounde to define the methods of fighting the common plague.

Tember creating the National Committee To Fight Migratory Locusts and Birds, headed by the prime minister. It was in his capacity as acting prime minister that the minister of state in charge of the Civil Service, El Hadj Sadou Daoudou, proceeded in the offices vesteriay morning to install the committee, which was meetin for the first time. Scining the acting prime minister were Victor Ayissi Myodo, minister of mate in charge of territorial administration, Felix Tonye Mbog, minister of arrivalture, Luc and, minister of livestock and the animal industry, Guillaume livele, minister of installing, and the governors of Central-South, North and North-West.

# Chipicines

A 1. He idou is udou stated, the essential tasks of the committee include the until it is the bird and locust situation in the national territory, particularly issue, he a table ment of a system of warning and information in the technical department to letect the incidence and extent of intestations, the escantization of all attendance and include and locusts which destroy crops and the estimation of all activities in the fight.

Time the beginning if the year, search and treatment operations (by land and helicitet terms) have being land tunately, the swarms of pests have rapidly multiplied because of climatic multions. Despite the work done by the OiCMA teams, a large number of adult warms crossed the lake and entered Chad, where no operation are trained that country's domestic situation.

If the present time, several awarms of migratory locusts coming from Chad have been significant in the regions at the North-East, in the mountain ranges and on the Adamagua Flateis, mainly at Tilati. Some incursions have also been detected in the northwest raine and in the Department of Benove. There is also reason to be concerned by a figure because as El had Sadou Dacudou revealed, all these regions must be in contration of the winged populations in November and December. The first the strike it be followed within the framework of the current CNAA constant in the first the feeting and treatment of all mountains in the prevent a several invasion.

#### Conservation.

In the transfer out the task, cooperation is obviously indispensible at all levels, as the artis, price minist explained, the people must be informed it the taylene of infectation are extent by the technical departments. The mass media expectation radio are rural people as or through broadcasts in french, but is in the national ampuages.

The critical with the CNLAA has just undertaken to fight migratory limits in the first a miths. It should be noted that the committee's budget is made up it it. It resources and will eventually be aided by funds from specialized interprinal pranizations. The UNDP (United Nations Development Program) and the TAC was rejective made a mitribution to the fund. Among the points on the agenda if the first meeting of the CNLAA yesterday were the examination and alequies of the billet for the amountain, meanting to 27% million CFA frames, including 1/2.4 million from the covernment, 6) million from the UNDP and 35 million from the FAD.

# CANE VARIETIES RESISTANT TO SMUT DEVELOPED

Mexico City EL SOL DE MEXICO in Spanish 22 Sep 80 p 2-A

[Article by Bertha Becerra: "Mexico Discovers Antidote Against Smut"]

[Text] After 6 years of research, Mexico has found genetic varieties resistant to the smut which attacks sugarcane. This can be used to fight a possible expansion of the fungus which produces it and which was found in small areas of Quintana Roo and Veracruz.

Eng Jorge Gutierrez Samperio, director of plant health for the SARH [Secretariat of Agriculture and Water Resources] said that the seeds resistant to this blight are already available so that the challenge "is to gain time against a possible spreading of the disease," by replacing the indigenous plants within a short term.

He said, in addition, that since 1975 varieties resistant to smut are being tested in the states of Veracruz, Tabasco and Campeche.

These genetic varieties were even taken to the sugar fields of Belize, after an international agreement between the two countries. There the Mexican varieties have proved highly resistant to the smut fungus.

The resistant varieties are already being used by sugarcane producers of the Gulf region.

This action will be intensified at sowing time to avoid a decrease in production due to a possible expansion of the blight.

The spore that produces this disease is easily transported by the wind. In the case of Mexico, special care must be taken during the current Caribbean hurricane season since the hurricanes could be the means of transporting the spore and infesting the national cane fields.

As a matter of fact, when the season of Caribbean winds toward the Gulf started, infestation of some cane fields was detected in Cosamaloapan.

Plant health surveillance is very strict in Veracruz and Quintana Roo to confine the blight to these areas.

Sugarcane smut appeared in 1975 in Jamaica; a year after that in Honduras and Panama; early in 1978 in Belize and in an area close to Rio Hondo; and in mid-1979 in the Alvaro Obregon commons in Quintana Roo.

When this blight appeared in Jamaica, Mexico immediately started searching for resistant genetic varieties, whose effectiveness was tested in the open field in Belize and in the laboratory in Hawaii with successful results, "so that it was possible to establish the cordon sanitaire in Mexico," engineer Gutierrez Samperio commented.

#### BRIEFS

INSECTS DAMAGING CROPS -- The Ministry of Agriculture and Livestock [MAC], through a study carried out by technicians in the state of Falcon, was able to determine the existence of three species of the insect commonly known as "Candelilla de Pastos" [glowworm], which are producing serious damage to the pastures of the cattle area of Mene Mauroa. The information was supplied by MAC chief of pastures and forage. Dr Juan Vicente Sanguino, who explained that the species detected were "Varia" and "Lepidor," which are found in 50 percent of the areas at highest altitude above sea level, and the species "Reducta" which is causing great harm in the low areas of that zone. He went on to explain that Guinea grass is the most affected forage grass, but that damage has also been observed in the elephant, buffel, millet and Saint Augustine grasses. The MAS official added that to control the insect, pasture conservation practices are being recommended and that in case of severe attacks they recommend the use of carbamate and phosphorus insecticides. Concluding, he said that with regard to combatting and controlling the "candelilla," the important thing is to locate a predatory fly which is the plague's natural enemy. [Text] [Caracas EL UNIVERSAL in Spanish 17 Sep 80 Sec 2 p 16] 9341

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